



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Yasuji HIRAMATSU, et al.

SERIAL NO: 09/807,960

GAU: 1775

FILED: May 18, 2001

EXAMINER: LAM, CATHY

FOR: CERAMIC SUBSTRATE

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

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SIR:

Applicant(s) wish to disclose the following information.

REFERENCES

- ☐ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☒ Attached is a list of applicant's pending application(s) which may be related to the present application. A copy of the claims and drawings of the pending application(s) is attached.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☒ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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LIST OF RELATED CASES

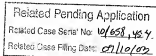
<u>Docket Number</u>	<u>Serial or Patent Number</u>	<u>Filing or Issue Date</u>	<u>Inventor/ Applicant</u>
205240US0 PCT*	09/807,960	05/18/01	HIRAMATSU, et al.
242402US90-CONT	10/658,454	09/10/03	ITO, et al.



CLAIMS

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1. A ceramic heater wherein a heating element is arranged on a surface of a ceramic substrate or inside the ceramic substrate,
- the surface roughness R_{max} of the side face of said ceramic substrate being from 0.1 to 200 μm according to JIS B 0601.
2. The ceramic heater according to claim 1, wherein said surface roughness R_{max} is from 0.5 to 200 μm according to JIS B 0601.
3. The ceramic heater according to claim 1 or 2, wherein said ceramic substrate is fitted into a supporting case.
4. The ceramic heater according to any of claims 1 to 3, wherein said ceramic substrate is made of a nitride ceramic.
5. The ceramic heater according to any of claims 1 to 3, wherein said ceramic substrate is made of a carbide ceramic or an oxide ceramic.
6. The ceramic heater according to any of claims 1 to 5, wherein said ceramic heater is for heating a semiconductor wafer.
7. The ceramic heater according to any of claims 1 to 6, wherein the thickness of said ceramic substrate is over 1.5 mm.



ABSTRACT

An object of the present invention is to provide a ceramic heater making it possible to suppress an outflow of heat to a supporting case and so on to make the temperature of its ceramic substrate uniform. The ceramic heater of the present invention is a ceramic heater wherein a heating element is arranged on a surface of a ceramic substrate or inside the ceramic substrate, the surface roughness R_{\max} of the side face of the ceramic substrate being from 0.1 to 200 μm according to JIS B 0601.

Related Pending Application

Related Case Serial No: 10/658,454

Related Case Filing Date: 09/10/02

Fig.1

